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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/038,332

10/23/2001

Masaki Ohira

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7590

11/18/2004

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EXAMINER

LI, SHI K

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. ☒

10/038,332

Applicant(s)

OHIRA ET AL.

Examiner

Shi K. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 15, 23 and 32 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 15 recites the limitation "if said first and second monitoring zones do not overlap, then said first and second portions of said transmission signal are the same portion". However, the instant specification teaches in page 7, lines 5-7 that the portion of overhead for zone i is region Xi. If two zones are not the same, their regions are not the same. This contradicts the claimed invention. Claim 23 recites similar limitation in lines 13-16 of the claim. Claim 32 recites similar limitation in lines 4-5 of the claim.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 8 recites the limitation "said second monitoring information" in line 10 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Fee et al. (U.S. Patent 5,956,165).

Fee et al. discloses in FIG. 4A, FIG. 4C and col. 12, lines 60-col. 13, line 2 a method for monitoring optical link. FIG. 4A comprises a network management system 460 for communicating with various optical transmission devices including endpoints 301 (first transmission device), drop/insert facility 407 (second transmission device), amplifier 450 and OCCS 470 (third transmission device). Endpoint 301 is instructed to insert subcarrier signal, drop/insert facility is instructed to add/drop wavelengths and OCCS is instructed to reroute wavelengths to various ports as end-point processing.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-3, 9, 12-15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. (U.S. Patent 5,956,165) in view of Joline et al. (U.S. Patent 6,005,696).

Fee et al. has been discussed above in regard to claims 1 and 8. Regarding claim 2, the difference between Fee et al. and the claimed invention is that Fee et al. does not teach to receive user input for monitoring parameters. Joline et al. teaches in FIG. 5 a method for testing a network. The first step of the method is to get user input for test parameters as illustrated as step 501 in FIG. 5. Joline et al. teaches in col. 11, lines 60-63 that user input includes information about type of test and circuit at which the test is applied. One of ordinary skill in the art would have been motivated to combine the teaching of Joline et al. with the optical link monitoring method of Fee et al. because receiving user input allows craftsperson to pick and choose the type of test and the part of the network at which the test is applied and, therefore, quickly obtain information that is needed. This provides great flexibility to the method. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a step of receiving user input, as taught by Joline et al., in the optical link monitoring method of Fee et al. because receiving user input allows craftsperson to pick and choose the type of test and the part of the network at which the test is applied and, therefore, quickly obtain information that is needed.

Regarding claims 3 and 9, as taught by Joline et al., the first instruction signal includes, as a portion, the type of test.

Regarding claim 12, Joline et al. teaches in col. 9, lines 38-58 that the test center dynamically configures monitoring zones. For example, a first monitoring zone is between Scranton and Harrisburg, and a second monitoring zone is between King of Prussia and Harrisburg, as illustrated in FIG. 2.

Regarding claim 13, Joline et al. teaches in FIG. 5 step 501 for getting user input.

Regarding claims 14-15, Joline et al. teaches in col. 11, lines 61-65 that user specifies the test type and monitoring zone. Two zones can overlap and have different test types. When two zones do not overlap, they can have same test types.

Regarding claim 18, as taught by Joline et al., the insertion-type instruction signal includes, as a portion, the type of test.

10. Claims 4-6 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. (U.S. Patent 5,956,165) in view of Amoruso (U.S. Patent 6,359,729 B1).

Fee et al. has been discussed above in regard to claims 1 and 8. The difference between Fee et al. and the claimed invention is that Fee et al. does not expressly teach to use the single network management system for managing the network. However, it is obvious to use the network management system for managing the network because it is the function for a network management system. In addition, Amoruso teaches in FIG. 1 a widely accepted telecommunication management network (TMN) structure where each network device is managed by a network element management while the whole network, comprising a plurality of network devices, is managed by network management. Amoruso further illustrates in FIG. 3 this structure. One of ordinary skill in the art would have been motivated to combine the teaching of Amoruso with the optical link monitoring method of Fee et al. because a single network management system allows coordination among network elements and comparing and tracking data collected from various network elements along data paths. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a single network management system for sending instructions to network elements, as taught by Amoruso, in the optical link monitoring method of Fee et al. because a single network management system allows

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coordination among network elements and comparing and tracking data collected from various network elements along data paths.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. (U.S. Patent 5,956,165) in view of Makam et al. (U.S. Patent Application Pub. 2001/0033570 A1).

Fee et al. has been discussed above in regard to claims 1 and 8. The difference between Fee et al. and the claimed invention is that Fee et al. does not teach to use frame signals for the first, second and third transmission signals. However, frame signals such as SONET are widely deployed in optical networks. For example, Makam et al. teaches in FIG. 1 a communication network with SONET, and a network management system 20 for communicating to network devices via communication links such as DCN, LAN and SONET transport overhead. In particular, Makam et al. teaches in paragraph [0041] to use SONET DCC channel for carrying network management information. One of ordinary skill in the art would have been motivated to combine the teaching of Makam et al. with the optical link monitoring method of Fee et al. because DCC is a standard channel for carrying network management information in SONET network which is widely deployed in communication networks. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use SONET transport overhead such as DCC channel for carrying network management information, as taught by Makam et al., in the optical link monitoring method of Fee et al. because DCC is a standard channel for carrying network management information in SONET network which is widely deployed in communication networks.

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12. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. and Joline et al. as applied to claims 2-3, 9, 12-15 and 18 above, and further in view of Fee (U.S. Patent 6,108,113).

Fee et al. and Joline et al. have been discussed above in regard to claims 2-3, 9, 12-15 and 18. The difference between Fee et al. and Joline et al. and the claimed invention is that Fee et al. and Joline et al. do not teach not to modify said monitoring information signals in pass-through devices. Fee teaches in FIG. 9 that monitoring information signal is passed through without modification in amplifier node 630 and processed in destination node. One of ordinary skill in the art would have been motivated to combine the teaching of Fee with the modified optical link monitoring method of Fee et al. and Joline et al. because it is only necessary to process monitoring information signal at destination site for fault detection. Any modification to the contents of the monitoring information signal corrupts the signal. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to pass through subcarrier signal in pass-through devices, as taught by Fee, in the modified optical link monitoring method of Fee et al. and Joline et al. because any modification to the contents of the monitoring information signal corrupts the signal and leads to misinterpretation by the destination.

13. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. and Joline et al. as applied to claims 2-3, 9, 12-15 and 18 above, and further in view of Amoruso (U.S. Patent 6,359,729 B1).

Fee et al. and Joline et al. have been discussed above in regard to claims 2-3, 9, 12-15 and 18. The difference between Fee et al. and Joline et al. and the claimed invention is that Fee et al.

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and Joline et al. do not expressly teach to use the single network management system for managing the network. However, it is obvious to use the network management system for managing the network because it is the function for a network management system. In addition, Amoruso teaches in FIG. 1 a widely accepted telecommunication management network (TMN) structure where each network device is managed by a network element management while the whole network, comprising a plurality of network devices, is managed by network management. Amoruso further illustrates in FIG. 3 this structure. One of ordinary skill in the art would have been motivated to combine the teaching of Amoruso with the modified optical link monitoring method of Fee et al. and Joline et al. because a single network management system allows coordination among network elements and comparing and tracking data collected from various network elements along data paths. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a single network management system for sending instructions to network elements, as taught by Amoruso, in the modified optical link monitoring method of Fee et al. and Joline et al. because a single network management system allows coordination among network elements and comparing and tracking data collected from various network elements along data paths.

14. Claims 21-32 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. and Amoruso as applied to claims 4-6 and 10-11 above, and further in view of Joline et al. (U.S. Patent 6,005,696).

Fee et al. and Amoruso have been discussed above in regard to claims 4-6 and 10-11. Regarding claims 21, 23, 26 and 30, the difference between Fee et al. and Amoruso and the claimed invention is that Fee et al. and Amoruso do not teach user input for defining monitoring

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zone. Joline et al. teaches in FIG. 5 a method for testing a network. The first step of the method is to get user input for test parameters as illustrated as step 501 in FIG. 5. Joline et al. teaches in col. 11, lines 60-63 that user input includes information about type of test and circuit at which the test is applied. One of ordinary skill in the art would have been motivated to combine the teaching of Joline et al. with the modified optical link monitoring method of Fee et al. and Amoruso because receiving user input allows craftsman to pick and choose the type of test and the part of the network at which the test is applied and, therefore, quickly obtain information that is needed. This provides great flexibility to the method. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a step of receiving user input, as taught by Joline et al., in the modified optical link monitoring method of Fee et al. and Amoruso because receiving user input allows craftsman to pick and choose the type of test and the part of the network at which the test is applied and, therefore, quickly obtain information that is needed.

Regarding claim 22, Joline et al. teaches in col. 9, lines 38-58 that the test center dynamically configures monitoring zones. For example, a first monitoring zone is between Scranton and Harrisburg, and a second monitoring zone is between King of Prussia and Harrisburg, as illustrated in FIG. 2.

Regarding claim 24, as taught by Joline et al., the first instruction signal includes, as a portion, the type of test.

Regarding claim 25, Amoruso teaches in FIG. 3 to use a single network management system for coordinating network management functions.

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Regarding claim 27, Joline et al. teaches in col. 11, lines 60-63 that user input includes information about type of test and circuit at which the test is applied.

Regarding claim 28, Joline et al. teaches in col. 9, lines 38-58 that the test center dynamically configures monitoring zones. For example, a first monitoring zone is between Scranton and Harrisburg and a second monitoring zone is between King of Prussia and Harrisburg, as illustrated in FIG. 2.

Regarding claim 29, Joline et al. teaches in col. 11, lines 60-63 that user input includes information about type of test and circuit at which the test is applied.

Regarding claim 31, it is obvious to charge optical transmission services according to the services provided.

Regarding claim 32, Joline et al. teaches in col. 11, lines 61-65 that user specifies the test type and monitoring zone. Two zones can overlap and have different test types. When two zones do not overlap, they can have same test types.

Regarding claim 34, Joline et al. teaches in col. 11, lines 60-63 that user input includes information about type of test and circuit at which the test is applied.

Regarding claim 35, Amoruso teaches in FIG. 3 to use a single network management system for coordinating network management functions.

15. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al., Amoruso and Joline et al. as applied to claims 21-32 and 34-35 above, and further in view of Fee (U.S. Patent 6,108,113).

Fee et al., Amoruso and Joline et al. have been discussed above in regard to claims 21-32 and 34-35. The difference between Fee et al., Amoruso and Joline et al. and the claimed

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invention is that Fee et al., Amoruso and Joline et al. do not teach not to modify said monitoring information signals in pass-through devices. Fee teaches in FIG. 9 that monitoring information signal is passed through without modification in amplifier node 630 and processed in destination node. One of ordinary skill in the art would have been motivated to combine the teaching of Fee with the modified optical link monitoring method of Fee et al., Amoruso and Joline et al. because it is only necessary to process monitoring information signal at destination site for fault detection. Any modification to the contents of the monitoring information signal corrupts the signal. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to pass through subcarrier signal in pass-through devices, as taught by Fee, in the modified optical link monitoring method of Fee et al., Amoruso and Joline et al. because any modification to the contents of the monitoring information signal corrupts the signal and leads to misinterpretation by the destination.

Conclusion

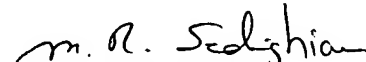
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

skl
2 November 2004


M. R. SEDIGHIAN
PRIMARY EXAMINER